Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:
2015 SRWMD Lidar DEM: North Central Florida

1.2. Summary description of the data:
This data set extends to a 100 meter buffer around SRWMD LiDAR Gaps in North Central FL BAA-FY15 boundary, which covers parts of Baker, Columbia, Dixie, Gilchrist, Hamilton, Jefferson, Lafayette, Levy, Madison, Taylor, and Union Counties in Florida, approximately 2030 Square Miles. This data set was created from LiDAR point cloud LAS swath files and tiled Las files. Each LAS file contains LiDAR point information, which has been calibrated, controlled, and classified.

Ground Conditions: water at normal levels; no unusual inundation; no snow; leaf off
USGS-NGP Base Lidar Specification v1.2

The NOAA Office for Coastal Management (OCM) received the DEM tif files from the Suwannee River Water Management District (SRWMD) and processed the data to the Data Access Viewer (DAV) and to https. The total number of files processed was 2945.

In addition to these bare earth Digital Elevation Model (DEM) data, the lidar point data that these DEM data were created from, and the hydro breaklines are also available. These data are available for custom download at the link provided in the URL section of this metadata record.

1.3. Is this a one-time data collection, or an ongoing series of measurements?
One-time data collection

1.4. Actual or planned temporal coverage of the data:
2015-12-10 to 2016-01-14

1.5. Actual or planned geographic coverage of the data:
W: -83.83111, E: -82.295177, N: 30.661306, S: 29.136186

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
Model (digital)

1.7. Data collection method(s):
(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:
NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:
coastal.info@noaa.gov

2.5. Phone number:
(843) 740-1202

3. Responsible Party for Data Management
Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

3.2. Title:
Data Steward

4. Resources
Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?
Yes

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):
Unknown

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Process Steps:

- 2016-01-18 00:00:00 - Aerial LiDAR Acquisition: Aerial data collection was acquired, in Twelve (12) missions, using the Leica ALS80 SN# 8235 at an altitude of 6,100 feet MSL. This was to support a 4.0 ppm^2 LiDAR point cloud. Airborne GPS and IMU data was collected during the acquisition and supported by Leica GS15 & GPS 1200 base stations that occupied temporary monuments in conjunction with CORS stations, Data acquisition started December 10, 2015 and was complete January 14, 2016. Ground Control Survey: A survey was performed to support the acquisition of Light Detection and Ranging (LiDAR). The control network involved a total of 169 check points (95 NVA + 74 VVA). The points were a combination of the following ground cover classification: Bare Earth, Pavement, Sand, High Vegetation, Medium Vegetation, Low Vegetation. All field survey observations were conducted between August 10, 2015 and August 14, 2015 with Leica GPS 1200 equipment.
- 2016-02-22 00:00:00 - LiDAR Pre-processing: Airborne GPS and IMU data were merged to develop a Smooth Best Estimate of Trajectory (SBET) of the LiDAR system for each mission. LiDAR ranging data were initially calibrated using previous best parameters for this instrument and aircraft. Relative calibration was evaluated using advanced plane-matching analysis and parameter corrections derived. This process was repeated interactively until residual errors between overlapping swaths, across all project lifts, was reduced to 2 cm or less. Raw data NVA were checked using surveyed check points.
- 2016-02-29 00:00:00 - RAW Data Processing: The Initial processing of the GPS data was processed using Inertial Explorer producing a solution file for each mission. Leica CloudPro software was then used to generate georeferenced laser returns into LAS 1.2 file format for each flight-line per each mission, this went through an initial Quality Control of the overlap between the flight-line swaths.
- 2016-02-21 00:00:00 - LiDAR Post-processing: The calibrated and controlled LiDAR swaths were processed using automatic point classification routines in TerraSolid software. These routines operate against the entire collection (all swaths, all lifts), eliminating character differences between files. Data were then distributed as virtual tiles to experienced LiDAR analysts for localized automatic classification, manual editing, and peer-based QC checks. Supervisory QC monitoring of work in progress and completed editing ensured consistency of classification character and adherence to project requirements across the entire project. All classification tags are stored in the original swath files. After completion of classification and final QC approval, the NVA and VVA for the project are calculated. Sample areas for each land cover type present in the project were extracted and forwarded to the client, along with the results of the accuracy tests. Upon acceptance, the complete classified LiDAR swath files were delivered to the client.

- 2016-01-08 00:00:00 - LiDAR Classification: The calibrated LiDAR data went through automated classification routines and then manually edited and checked. The LiDAR point cloud data was classified into the following classes: 1-unclassified*, 2-ground, 7-low noise, 9-water, 10-buffer, 17-bridges, and 18-high noise
- 2016-06-20 00:00:00 - Hydro Breaklines: Hydro break lines were compiled in ArcMap using the LiDAR intensity data and surface terrain model of the entire project area. After the collection of hydro lines all features were conflated and validated for monotonicity and vertical variance, to ensure that no points were floating above ground. The hydro break lines were then embeded into the LiDAR surface and used to create a hydro enforced DEM.
- 2016-06-29 00:00:00 - Bare-Earth DEM Creation: Bare-Earth Digital Elevation Models (DEMs) were derived using the hydro break line and bare-earth (ground) LiDAR points, all DEMs were created with a grid spacing of 5 foot. The DEMs were cut to tiles of 5000 feet x 5000 feet index, provided by the US Geological Survey.
- 2020-09-08 00:00:00 - The NOAA Office for Coastal Management (OCM) received DEM tif files at a 2.5 ft grid spacing from the SRWMD. The total number of files downloaded and processed was 2945. The data were in FL State Plane North (0903) , (NAD83 HARN), US Survey Feet coordinates and NAVD88 (Geoid12B) elevations in feet. OCM performed the following processing on the data for Digital Coast storage and provisioning purposes: 1. Used internal script to assign the EPSG codes (Horiz - 2883, Vert - 5703) and convert to GeoTiff format. 2. Copied the files to https.
- 2020-09-23 00:00:00 - The NOAA Office for Coastal Management (OCM) received a single DEM tif file at a 2.5 ft grid spacing from the SRWMD. This file provided coverage in an area where there was a gap. This data was received and processed to the DAV in Sept 2020. The data were in FL State Plane North (0903), (NAD83 HARN) , US Survey Feet coordinates and NAVD88 (Geoid12B) elevations in feet. OCM performed the following processing on the data for Digital Coast storage and provisioning purposes: 1. Used internal script to assign the EPSG codes (Horiz - 2883, Vert - 5703) and convert to GeoTiff format. 2. Copied the files to https.

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:
- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 5.2. Quality control procedures employed
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.4. Approximate delay between data collection and dissemination
- 8.3. Approximate delay between data collection and submission to an archive facility

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:

https://www.fisheries.noaa.gov/inport/item/62877

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

Yes

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

NOAA Office for Coastal Management (NOAA/OCM)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=9178/details/9178
https://coast.noaa.gov/htdata/raster5/elevation/FL_N_Cent_DEM_2015_9178

7.3. Data access methods or services offered:

Data is available online for bulk and custom downloads.

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

NCEI_CO

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):

Office for Coastal Management - Charleston, SC

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

Data is backed up to tape and to cloud storage.

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.